

1 89.(New) The interconnection component, according to claim 87 wherein:
2 the contact tip structure comprises multiple metallic layers.

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1 90.(New) The interconnection component, according to claim 87 wherein:
2 the contact tip structure is formed as part of a cantilevered interconnect
3 structure.

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1 91.(New) The interconnection component, according to claim 87 wherein:
2 the interconnection element has a relatively flexible core element and a shell on
3 the relatively flexible core element.

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1 92.(New) The interconnection component, according to claim 87 wherein:
2 the interconnection element has a relatively flexible core and a layer, on the core
3 element, comprising a material selected from the group consisting of nickel, an alloy of
4 nickel, cobalt, an alloy of cobalt, and an alloy of nickel and cobalt.

1 93.(New) The interconnection component, according to claim 92 wherein:
2 the core element comprises gold.

1 94.(New) The interconnection component, according to claim 87 wherein:
2 the resilient elongate element has a core element and a shell;
3 the core element is readily-shaped and comprises a material selected from
4 the group consisting of:
5 (a) gold, aluminum and copper with small amounts of beryllium,
6 cadmium, silicon and magnesium, and
7 (b) metals of the platinum group, and
8 (c) lead, tin, and indium.

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1 95.(New) The interconnection component, according to claim 87 wherein:
2 the core element has a diameter in the range of from 0.25 to 10 mils.

1 96.(New) The interconnection component, according to claim 87 wherein:
2 the core element has a diameter in the range of from 0.5 to 3 mils.

1 97.(New) The interconnection component, according to claim 87 wherein:
2 the core element has a length in the range of from 10 mils to 500 mils.

1 98.(New) The interconnection component, according to claim 87 wherein:
2 the shell has at least one layer which comprises a material which is
3 selected for its ability to provide mechanical properties selected from the group consisting
4 of spring properties, resiliency yield strength and compliance for the resilient elongate
5 element.

1 99.(New) The interconnection component, according to claim 98 wherein:
2 the shell has at least one layer which comprises a material which has a
3 yield strength of at least thirty thousand pounds per square inch.

1 100.(New) The interconnection component, according to claim 98 wherein:
2 the shell has at least one layer which comprises a material which has a
3 tensile strength in excess of 80,000 pounds per square inch.

1 101.(New) The interconnection component, according to claim 87 wherein:
2 the shell has at least one layer which comprises a material selected from
3 the group consisting of nickel, iron, and cobalt.

1 102.(New) The interconnection component, according to claim 87 wherein:
2 the shell has at least one layer which comprises a material selected from
3 the group consisting of copper, nickel, cobalt, tin, boron, phosphorous, chromium,
4 tungsten, molybdenum, bismuth, indium, cesium, antimony, gold, silver, rhodium,
5 palladium, platinum, lead, and ruthenium.

1 103.(New) The interconnection component, according to claim 87 wherein:
2 the core element comprises gold and the shell comprises a material selected from
3 the group consisting of nickel and cobalt.

1 104.(New) The interconnection component, according to claim 91 wherein:
2 the shell has a thickness in the range of from 0.20 mils to 20 mils.

1 105.(New) The interconnection component, according to claim 91 wherein:
2 the shell has a thickness in the range of from 0.25 to 10 mils.

1 106.(New) An electronics assembly comprising:
2 a substrate;
3 a resilient elongate element having a first end secured to the substrate; and
4 a contact tip structure secured to a second end of the resilient elongate
5 element opposing the first end.

1 107.(New) The electronics assembly, according to claim 106 further
2 comprising:
3 a plurality of resilient elongate elements, each having a first end secured to
4 the substrate; and

5 a plurality of contact tip structures, each secured to a respective end of the
6 respective resilient elongate element opposing a respective first end thereof.

1 108.(New) The electronics assembly, according to claim 106 wherein:
2 the contact tip structure is separately fabricated and mounted to the
3 resilient elongate element.

1 109.(New) The electronic assembly, according to claim 108 wherein:
2 the resilient elongate element has a relatively flexible core element and a
3 layer on the relatively flexible core element.

1 110.(New) The electronic assembly, according to claim 108 wherein:
2 the resilient elongate element has a relatively flexible core and a layer, on the
3 relatively flexible core element, of a material selected from the group consisting of
4 nickel, an alloy of nickel, cobalt, an alloy of cobalt and an alloy of nickel and cobalt.

1 111.(New) The electronic assembly, according to claim 110 wherein:
2 the relatively flexible core element comprises gold.

1 112.(New) The electronics assembly, according to claim 106 wherein:
2 the resilient elongate element has a core element and a shell;
3 the core element is readily-shaped and comprises a material selected from
4 the group consisting of:

- 5 (a) gold, aluminum and copper with small amounts of beryllium,
6 cadmium, silicon and magnesium, and
7 (b) metals of the platinum group, and
8 (c) lead, tin, and indium.

1 113.(New) The electronics assembly, according to claim 109 wherein:
2 the layer comprises a material which is selected for its ability to provide
3 mechanical properties selected from the group consisting of spring properties, resiliency
4 yield strength and compliance for the resilient elongate element.

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1 114.(New) The electronics assembly, according to claim 109 wherein:
2 the first end of the relatively flexible core element forms a first intimate
3 bond with a conductive contact terminal carried by an electronic component; and
4 the layer forms a second intimate bond with at least a portion of the
5 conductive contact terminal immediately adjacent the first intimate bond.